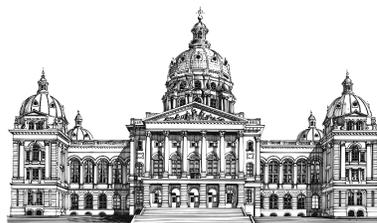

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Pseudorabies Eradication

ISSUE

This *Issue Review* examines the progress of pseudorabies eradication in the State of Iowa.

AFFECTED AGENCIES

Iowa Department of Agriculture and Land Stewardship

CODE AUTHORITY

Chapter 166D, Code of Iowa

BACKGROUND

Pseudorabies is a swine disease caused by a herpes virus. Due to extensive use of vaccines and virus mutations, symptoms of pseudorabies have changed from the mid 1970's to the late 1990's. Symptoms of pseudorabies in the 1990's include:

- An increase in stillborn or mummified pigs.
- A decrease in litter size.
- A lower conception rate than normal.
- Chronic respiratory problems in feeder and finisher pigs.

Pseudorabies is spread by infected swine that shed the virus during times of stress. The virus is shed in mucous, saliva, breath, urine, and semen. The virus is commonly spread by direct animal to animal (nose to nose) contact. It is believed the second most common means of the virus spread is from inanimate objects such as clothing, boots, equipment, etc.

History of Pseudorabies Eradication Program

In 1983 pork producers nationwide requested the United States Department of Agriculture (USDA) to conduct pilot projects to determine if eradication of pseudorabies was practical. The results of the pilot projects were favorable and pork producers voted to begin a national control and eradication program in 1987. The Cooperative State-Federal-Industry Pseudorabies Eradication Program officially began on January 1, 1989, with a goal of having

the nation's swine herds pseudorabies free by the year 2000. The cooperative program agreement calls for approximately one-third funding each from federal, state and industry sources for pseudorabies eradication.

Federal Funds for Veterinarian Services

Federal funds for veterinarian services are used to pay a portion of the fees charged by veterinarians to collect blood samples to test for pseudorabies in herds and to track progress of pseudorabies eradication in Iowa. Federal funds for veterinarian services do not pass through the Iowa Department of Agriculture and Land Stewardship. Federal appropriations for veterinarian services in Iowa have been approximately \$700,000 every fiscal year since 1994.

Funding for Cooperative State-Federal-Industry Pseudorabies Eradication Program

Federal funds are used for:

- Blood laboratory testing done at Iowa State University.
- Database material, computers, and employee salaries at the Iowa Department of Agriculture and Land Stewardship used in pseudorabies eradication.

State funds are used for:

- A portion of the fees for veterinarians to collect blood samples and laboratory testing at Iowa State University.
- A portion of Dr. Walter Felker's, State Veterinarian, other State district veterinarians' salaries, and other personnel devoted to pseudorabies eradication.

Industry funds are used for:

- Vaccinations.
- Labor costs involved in implementing herd cleanup plans and collecting blood samples.

Federal and state expenditures for the Cooperative State-Federal-Industry Pseudorabies Eradication Program can be divided into two types: direct program activities and non-direct program activities. Direct program activities refer to expenditures that directly aid pork producers such as: veterinarian fees, blood laboratory testing, and industry expenditures. Non-direct program activities include database materials, computers, personnel salaries, and related office expenditures.

Table 1 below lists federal and state expenditures, by direct and non-direct program activities, for the Cooperative State-Federal-Industry Pseudorabies Eradication Program and does not include federal expenditures for veterinarian services.

Table 1
Cooperative State-Federal-Industry Pseudorabies Eradication Program
Direct and Non-Direct Federal and State Expenditures

State Fiscal Year	Federal Expenditures			State Expenditures		
	Direct	Non-direct	Total	Direct	Non-Direct	Total
1994	\$516,552	\$302,005	\$818,557	\$899,878	\$239,145 (1)	\$1,139,023 (1)
1995	378,900	296,094	674,994	807,309	369,995	1,177,304
1996	427,881	234,609	662,490	885,958	461,985	1,347,943
1997	344,683	320,257	664,940	900,300	463,882	1,364,182
1998	377,999	272,404	650,403	891,010	473,012	1,364,022

(1) Does not include 1st quarter state expenditures for non-direct program activities.

Cooperative State-Federal-Industry Pseudorabies Eradication Program

There are five program stages and requirements as part of the Cooperative State-Federal-Industry Pseudorabies Eradication Program. The five Program stages are:

- Stage I - Preparation - basic procedures to control and eradicate the disease are developed.
- Stage II - Control - infected herds in Program areas are identified and herd cleanup begins.
- Stage III - Mandatory Herd Cleanup - the cleanup of infected herds becomes mandatory.
- Stage IV - Surveillance - qualifications for Stage IV include:
 1. There is no known infection in the state or area of the state.
 2. The state or area requires origin identification of swine.
 3. No new cases of pseudorabies have been confirmed during the prior year.
- Stage V - Free - the state is declared pseudorabies free.

Iowa Legislation for Pseudorabies Eradication

Chapter 166D, Code of Iowa, Pseudorabies Control, was established by the 1989 General Assembly as a part of the Cooperative State-Federal-Industry Pseudorabies Eradication Program. This Chapter provides for the control and eradication of pseudorabies within the State of Iowa and establishes a State Pseudorabies Advisory Committee. Duties of the Committee include:

- Approve Program areas.
- Inform and educate pork producers, processors, and marketers about pseudorabies.
- Review eradication activities under Chapter 166D.

Under Chapter 166D the Department of Agriculture and Land Stewardship shall:

- Establish Program areas, where a Program area is a county.

- Determine the prevalence of pseudorabies in each county.

Chapter 166D sets up provisions for:

- The administration of Program areas.
- Reporting of test results.
- Pseudorabies vaccines and vaccinations.
- Herd cleanup plans.
- Tracing pseudorabies to sources or destination herds.

CURRENT SITUATION

The State of Iowa is making progress towards pseudorabies eradication. Currently there are 33 counties in southern Iowa at Stage III (Mandatory Cleanup) with the remaining 66 counties at Stage II (Control).

As of June 1998:

- There were 36 counties in Iowa with no infected swine herds.
- A total of 65 counties had three or less infected swine herds.
- Twenty newly infected herds in eleven counties.

The number of infected swine herds has been declining over the past five years. In January 1994, there was a total of 4,176 infected herds in the State of Iowa. By June 1997 this figure had dropped to 1,146 infected herds and as of June 1998 there were only 704 infected swine herds.

Table 2 below illustrates the decline in the percentage of infected swine herds by the number of counties in Iowa from January 1994 to June 1998.

Table 2
Percent of Infected Swine Herds

<u>Percentage of Herds Infected</u>	<u>Number of Counties</u>	
	<u>December 1994</u>	<u>June 1998</u>
0.0 - 1.0%	14	49
1.1 - 5.0%	23	35
5.1 - 10.0%	29	9
10.1 - 20.0%	27	6
20.1 - 30.0%	2	0
>30.1%	4	0

As shown in **Table 2** in December 1994 there were only 14 Iowa counties with 1.0% or less of its swine herds infected with pseudorabies, by June 1998, a total of 49 counties had 1.0% or less of its herds infected. It should also be noted that a majority of counties (62) in 1994 had over 5.0% of its herds infected, by June 1998 that had dropped to only 15 counties.

ALTERNATIVES

Two alternatives for State funding for the Pseudorabies Eradication Program include:

- Decrease State funding.
- Maintain State funding at current levels.

BUDGET IMPACT

The goal of the Cooperative State-Federal-Industry Pseudorabies Eradication Program is to have the nation's swine herds pseudorabies free by the year 2000. The Department of Agriculture and Land Stewardship was appropriated \$900,500 for pseudorabies eradication in FY 1999 and is requesting the same amount for FY 2000. Decreased State funding for pseudorabies eradication would result in fewer blood sample tests. Maintaining State funding for pseudorabies eradication at current levels would help to achieve the goal of Iowa becoming pseudorabies free by the year 2000.

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